UNITED
NATIONS

A

General Assembly

Distr.
LIMITED

A/AC.105/L.196/Add.1
22 June 1992

ORIGINAL: ENGLISH

COMMITTEE ON THE PEACEFUL USES
OF OUTER SPACE

DRAFT REPORT ON THE WORK OF THE THIRTY-FIFTH SESSION

Addendum

B. Report of the Scientific and Technical Subcommittee on the work of its twenty-ninth session

Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (agenda items 7 and 9)

1. The Committee considered jointly agenda items 7 and 9, entitled "Report of the Scientific and Technical Subcommittee on the work of its twenty-ninth session" and "Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space", respectively.

1. Report of the Scientific and Technical Subcommittee on the work of its twenty-ninth session

2. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on the work of its twenty-ninth session (A/AC.105/513), covering the results of its deliberations on the items assigned to it by the General Assembly in its resolution 46/45.

2. Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space

(a) Working Group of the Whole

3. The Committee noted with satisfaction that, in accordance with General Assembly resolution 46/45, the Subcommittee had given priority consideration to the item entitled "Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space" and had re-established the Working Group of the Whole to evaluate the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82) under the chairmanship of Mr. Muhammad Nasim Shah (Pakistan).

4. The Committee noted with satisfaction that a number of reports related to the recommendations of UNISPACE 82 had been prepared in accordance with the recommendations of the Working Group of the Whole at its fifth session in 1991, as endorsed by the General Assembly in paragraph 10 of its resolution 46/45. The Committee also noted that further studies and reports would be prepared in accordance with the recommendations of the Working Group of the Whole at its sixth session, held in 1992.

5. The Committee noted that the Working Group of the Whole had reviewed the implementation of the recommendations of UNISPACE 82, had concluded that many of the recommendations were still not fully implemented and had made a number of recommendations concerning the further implementation of the recommendations of the Conference. The Committee endorsed the recommendations of the Working Group of the Whole, as contained in its report (A/AC.105/513, annex II).

6. The Committee recommended that the Working Group of the Whole should be reconvened during the next session of the Scientific and Technical Subcommittee to continue its work.

7. The Committee, while expressing its appreciation to all Governments that had made or had expressed their intention of making contributions for the implementation of the recommendations of UNISPACE 82, took note of the disappointment expressed by the developing countries at the lack of financial resources to implement those recommendations fully.

(b) United Nations Programme on Space Applications

8. At the outset of the Committee's deliberations on this item, the United Nations Expert on Space Applications of the Office for Outer Space Affairs reviewed the activities carried out and planned under the Programme on Space Applications during the period 1991-1993. The Committee expressed its appreciation to the Expert on Space Applications for the effective manner in which he had implemented the Programme within the limited funds at his disposal.

9. The Committee continued to express its concern over the limited financial resources available for carrying out the Programme and appealed to Member States to support the Programme through voluntary contributions. The Subcommittee felt that the limited resources of the United Nations should be focused on the highest priority activities and noted that the Programme on Space Applications was the priority activity of the Office for Outer Space Affairs.

10. The Committee took note of the Programme on Space Applications, as set out in the report of the Subcommittee. The Committee was pleased to note that further progress was being made in the implementation of the Programme activities planned for 1992.

(i) Long-range fellowships for in-depth training

11. The Committee expressed its appreciation to the Governments of Austria, Brazil, China and the Russian Federation, as well as to ESA, for offering fellowships through the United Nations in 1991-1992 and to the Governments of Austria, Brazil and China as well as to ESA, for renewing their offers of fellowships for 1992-1993. The Committee also expressed its appreciation to the Government of Greece for its offer of fellowships.

(ii) United Nations workshops, training courses and seminars

12. As regards the United Nations workshops, training courses and seminars for 1992, the Committee expressed its appreciation to:

(a) The Governments of Ecuador and Japan, for cosponsoring the United Nations Workshop on Space Technology for Resource Development and Environment Management (March 1992);

(b) The Government of Sweden, for having cosponsored the Second United Nations/Sweden Training Course on Remote Sensing Education for Educators (May-June 1992);

(c) The Governments of Colombia and Costa Rica, as well as ESA and the Planetary Society, for cosponsoring the United Nations/ESA/Planetary Society Workshop on Basic Space Science for Development (November 1992);

(d) The Government of the United States, for cosponsoring the International Conference on Satellite Remote Sensing for Resource Management, Environmental Assessment and Global Change Studies (August 1992);

(e) The Government of Germany, as well as the Carl Duisberg Society, Berlin, for cosponsoring the Fourth United Nations Training Course on Remote Sensing Applications to Geological Sciences (September-October 1992);

(f) The Government of the Republic of Korea for cosponsoring the Workshop on Communications Technology for Development (November 1992);

(g) ESA, for cosponsoring the Seventh United Nations/FAO/WMO/ESA Course on the Use of Visible, Infrared and Radar Systems in Hydrological and Agrometeorological Applications (October 1992);

13. The Committee endorsed the programme of United Nations workshops, training courses and seminars proposed for 1993 as outlined by the United Nations Expert on Space Applications of the Office for Outer Space Affairs in his report (see A/AC.105/497, para. 29 (a)-(h)), including two additional activities indicated in his statement to the Committee, and recommended those activities for approval by the General Assembly. In so doing, the Committee welcomed the invitations from:

(a) The Government of Greece to host and cosponsor the United Nations Seminar on Communications for Development, for the benefit of countries in the Mediterranean and adjacent areas;

(b) The Economic and Social Commission for Western Asia (ESCWA) to cosponsor the United Nations Workshop on the Use of Space Techniques for Monitoring and Control of the Desert Environment, for the benefit of ESCWA member States;

(c) The Government of Indonesia to host and cosponsor the United Nations Regional Conference on Space Technology for Sustainable Development, for the benefit of ESCAP States members of the Economic and Social Commission for Asia and the Pacific (ESCAP);

(d) The Economic Commission for Africa (ECA) to cosponsor the United Nations/ECA Space Conference on Africa: Environmental and Natural Resources Information and Africa's Management Needs;

(e) The Government of Mexico to host and cosponsor the United Nations/Office of the United Nations Disaster Relief Coordinator (UNDRO) Regional Workshop on Space Technology to Combat Natural Disasters, for the benefit of Member States in the Economic Commission for Latin America and the Caribbean (ECLAC) region;

(f) The Government of Germany to host and cosponsor the United Nations Regional Training Course on Remote Sensing Applications to Geological Sciences for the benefit of the ESCAP region;

(g) ESA to host and cosponsor the United Nations Training Course on Monitoring Natural and Renewable Energy Resources and the Environment in the Sahel Region, funded by the Government of Italy, for the benefit of French-speaking African countries; the course is being organized jointly with the United Nations Department for Economic and Social Development;

(h) The Government of Sweden to host and cosponsor the Third United Nations/Sweden Training Course on Remote Sensing Education for Educators.

14. The Committee also noted with appreciation the financial contributions of $9,000 (including $4,500 for International Space Year activities) from the Government of Austria, $7,000 from the Government of Greece, $18,000 from the Government of Pakistan and $75,000 from ESA in support of the 1991 activities of the Programme on Space Applications, and the contributions of $20,000 from the Government of Austria, $7,000 from the Government of Greece, $15,000 from the Government of Pakistan and $50,000 from ESA in support of the 1992 activities. The Committee also noted with appreciation the provision of experts, as instructors and speakers in the activities of the Programme on Space Applications, by the host countries and other countries. The Committee also noted the financial and other assistance provided by ESCAP, FAO, UNDP, UNESCO, WMO and ESA. The Committee further noted with appreciation the statement by the Government of China that it would make a voluntary contribution of $30,000 in support of the activities of the Programme.

(iii) Centres for space science and technology education

15. The Committee noted with satisfaction that a number of Member States in the ECA, ECLAC, ESCAP and ESCWA regions had expressed interest in hosting the proposed regional centres for space science and technology education, based on existing national or regional educational institutions in developing countries, to promote the development of indigenous capabilities. The Committee welcomed the report on the matter entitled "Centres for Space Science and Technology" (A/AC.105/498) and urged Member States to consider providing voluntary contributions to support that effort.

16. The Committee expressed its appreciation to the Governments of Canada and Spain for each having sent an expert to participate in an evaluation mission to Argentina, Brazil, Chile and Mexico in May 1992 for the establishment of a centre in the ECLAC region. The Committee noted that further missions to other regions were being planned.

(iv) Technical advisory services

17. The Committee noted that the Programme had provided or would provide the following technical advisory services: to the Government of Ecuador in promoting regional use of the remote-sensing ground receiving station at Cotopaxi, Ecuador; and to the Government of the Islamic Republic of Iran for the organization of a Seminar on Remote Sensing of the Environment and Earth Resources.

18. The Committee also noted that the Programme was collaborating with ESA in a follow-up of the UN/ESA International Space Year activity on the use of remote-sensing data being provided by ESA to four African countries covered by the receiving stations at Maspalomas, Canary Islands, Spain, and Fucino, Italy. The Committee further noted that the Programme was collaborating with ESA in reviewing the training needs of the participating African institutions.

19. The Committee took note with interest of the plans by the Government of Chile to host the Second Space Conference of the Americas, at Santiago, in

January 1993 and expressed its appreciation to the Programme for providing technical advisory services in support of the Conference.

(v) Promotion of greater cooperation in space science and technology

20. Regarding the promotion of greater cooperation in space science and technology, the Committee noted with satisfaction that the United Nations Programme on Space Applications was cosponsoring the following activities:

(a) A symposium entitled "Space Technology in Developing Countries - Making It Happen", cosponsored by COSPAR, IAF and the American Institute for Aeronautics and Astronautics (AIAA). The symposium, to be held in Washington, immediately prior to the World Space Congress was a follow-up to the Workshop on Space Technologies for Developing Countries, which was cosponsored by the Government of Canada and IAF in 1991;

(b) A Workshop on Data Analysis Methods and Applications for developing countries, cosponsored by ISPRS, at the 1992 ISPRS Congress;

(c) Symposia and workshops in conjunction with the IAF Congress to be held in Graz, Austria, in 1993 and with the COSPAR and ISPRS meetings to be held in 1994.

(c) International space information service

21. With regard to the international space information service, the Committee noted with satisfaction the publication of the third volume of "Seminars of the United Nations Programme on Space Applications" (A/AC.105/492), containing selected papers from the seminars, workshops and training courses of the 1991 activities of the Programme on Space Applications and "Highlights in Space" (A/AC.105/515), based on annual reports prepared by COSPAR (A/AC.105/502) and IAF (A/AC.105/503) and submitted to the Scientific and Technical Subcommittee.

(d) Coordination of space activities within the United Nations system and inter-agency cooperation

22. With regard to coordination of outer space activities within the United Nations system and inter-agency cooperation, the Committee noted the request of the General Assembly, contained in its resolution 46/45, to all organs, organizations and bodies of the United Nations system to cooperate in the implementation of the recommendations of UNISPACE 82.

23. The Committee further noted with appreciation that the Scientific and Technical Subcommittee had continued to stress the necessity of ensuring continuous and effective consultations and coordination in the field of outer space activities among organizations within the United Nations system. The Committee noted with satisfaction that the thirteenth Inter-Agency Meeting on Outer Space Activities had been held in 1991 (see ACC/1991/PG/12) and that a report on coordination of outer space activities within the United Nations system had been submitted to the Scientific and Technical Subcommittee

(A/AC.105/491 and Corr.1). The Committee also noted with appreciation that the fourteenth Inter-Agency Meeting on Outer Space Activities would be held in October 1992 at UNESCO headquarters in Paris.

24. The Committee noted with appreciation the participation in all stages of its work and in that of its Subcommittee by representatives of United Nations bodies, the specialized agencies and other international organizations. The Committee found the reports submitted by those bodies helpful in enabling it and its subsidiary bodies to fulfil their role as a focal point for international cooperation, especially with respect to the practical applications of space science and technology in developing countries.

(e) Regional and interregional cooperation mechanisms

25. Regarding regional and interregional cooperation mechanisms, the Committee noted with satisfaction that, pursuant to General Assembly resolution 46/45, paragraph 15, and the recommendations of UNISPACE 82, the Secretariat had continued to seek to strengthen regional mechanisms of cooperation by organizing regional workshops and training courses as part of the United Nations Programme on Space Applications and by providing technical assistance to ECA, the Sociedad de Especialistas Latinoamericanos en Percepción Remota (SELPER) and to other regional activities in Africa and Latin America, as well as by promoting the establishment of regional centres for space science and technology education.

26. The Committee noted the contributions made by other international organizations towards the implementation of the recommendations of UNISPACE 82. In particular, the Committee noted that UNESCO had strengthened its remote-sensing programmes, including an initiative to support the establishment of satellite data centres (see A/AC.105/519); ESA was continuing its space science and applications programmes, including activities in cooperation with developing countries; and INTELSAT was continuing to develop its system of international communication satellites for use by all countries and was expanding its training programme for developing countries.

(f) Other

27. The Committee noted a proposal that a third UNISPACE Conference should be organized in 1995, preferably to be held in a developing country, with a view to promoting increased participation of all developing countries in space activities.

3. Matters relating to remote sensing of the Earth by satellites, including, inter alia, applications for developing countries

28. The Committee noted that, in accordance with General Assembly resolution 46/45, the Subcommittee had given priority consideration to matters relating to remote sensing of the Earth by satellites.

29. The Committee also noted that, in the course of the debate in the Subcommittee, delegations had reaffirmed their basic positions relating to remote sensing, which had been reflected in the reports of the previous sessions of the Subcommittee.

30. The Committee recognized the importance of continuing international efforts to ensure the continuity, compatibility and complementarity of systems for remote sensing of the Earth and to promote cooperation through regular meetings between satellite operators, ground station operators and users.

31. The Committee recognized the example of international cooperation given by the free distribution of meteorological information. All countries and agencies were urged to continue that practice.

32. Some delegations expressed serious concern over the commercialization of remote-sensing activities and suggested that the prices of remote-sensing data products and access fees for data reception should be reduced significantly so as to make them affordable for the developing countries and enable the latter to benefit fully from the use of remote-sensing technology.

33. The Committee endorsed the recommendation of the Subcommittee that, recalling General Assembly resolution 41/65 of 3 December 1986 by which the Assembly had adopted the Principles relating to Remote Sensing of the Earth from Outer Space, it would continue, at its thirtieth session, its discussion on remote-sensing activities conducted in accordance with those Principles.

34. The view was expressed that the Committee should undertake discussions on the development of the Principles into some form of international agreement.

35. The Committee endorsed the recommendation of the Subcommittee that the item should be retained on its agenda as a priority item for the next session.

4. Use of nuclear-power sources in outer space

36. The Committee noted that, in accordance with resolution 46/45, the Scientific and Technical Subcommittee had reconvened the Working Group on the Use of Nuclear-Power Sources in Outer Space to enable it to resume its work.

37. The Committee noted that the Subcommittee had adopted the report of the Working Group on the Use of Nuclear Power Sources in Outer Space as contained in annex III to the report of the Subcommittee (A/AC.105/513).

38. The Committee endorsed the recommendation of the Subcommittee that Member States should be invited to report to the Secretary-General on a regular basis with regard to national and international research concerning the safety of nuclear-powered satellites.

39. The Committee endorsed the recommendation of the Subcommittee that further studies should be conducted on the problem of the collision of

nuclear-power sources with space debris and that the Subcommittee should be kept informed of the results of such studies.

40. Noting the Subcommittee's recommendation that the Committee should consider the question of reconvening the Working Group on the Use of Nuclear Power Sources in Outer Space, the Committee recommended ... [to be added]

5. Space transportation systems

41. The Committee noted that, in accordance with General Assembly resolution 46/45, the Subcommittee had continued consideration of the item relating to space transportation systems and their implications for future activities in space.

42. The Committee took note of the progress being achieved in the various programmes in operation or planned by China, India, Japan, the Russian Federation, the United Kingdom, the United States and ESA.

43. The Committee endorsed the recommendation of the Subcommittee to continue consideration of the item at its next session.

6. Examination of the physical nature and technical attributes of the geostationary orbit; examination of its utilization and applications, including, inter alia, in the field of space communications, as well as other questions relating to space communications developments, taking particular account of the needs and interests of developing countries

44. The Committee noted that, in accordance with General Assembly resolution 46/45, the Subcommittee had continued consideration of the item relating to the geostationary orbit.

45. The Committee noted that delegations had reiterated and elaborated on the views concerning the question of the geostationary orbit that had been expressed at earlier sessions and reflected in earlier reports of the Committee and its two subcommittees.

46. The Committee expressed its appreciation to ITU for submitting its thirty-first annual progress report on telecommunication and the peaceful uses of outer space (A/AC.105/518). Some delegations, in their statements, stressed the important technical scope of the work of ITU, while drawing attention to the competence of the Committee on the Peaceful Uses of Outer Space in preparing policy decisions that refer to the geostationary orbit.

47. The Committee endorsed the recommendation of the Subcommittee that it should continue consideration of the item at its next session.

7. Matters relating to life sciences, including space medicine; progress in national and international space activities related to the Earth environment, in particular progress in the geosphere-biosphere (global change) programme: matters relating to planetary exploration; matters relating to astronomy

48. The Committee noted that, in accordance with General Assembly resolution 46/45, the Subcommittee had continued to consider the items concerning matters relating to life sciences, including space medicine; progress in national and international space activities related to the Earth environment, in particular progress in the geosphere-biosphere (global change) programme; matters relating to planetary exploration; and matters relating to astronomy.

49. The Committee noted with satisfaction that a number of special presentations had been made to the Subcommittee on those items by specialists from various countries and a paper (A/AC.105/C.1/L.182) as well as a study (A/AC.105/500) had been circulated.

50. The Committee endorsed the recommendations of the Subcommittee to continue consideration of the item at its next session.

8. Themes fixed for special attention at the 1992 and 1993 sessions of the Scientific and Technical Subcommittee

51. The Committee noted that, in accordance with General Assembly resolution 46/45, the Subcommittee had considered the theme fixed for special attention at the 1992 session of the Scientific and Technical Subcommittee: "Space technology and the protection of the Earth's environment: development of endogenous capabilities, in particular in the developing countries and in the context of International Space Year".

52. The Committee noted with satisfaction that, in accordance with General Assembly resolution 46/45, COSPAR and IAF, as part of the Subcommittee's special session to mark International Space Year, had conducted a symposium on the theme. The Committee expressed its appreciation to COSPAR and IAF for their generous support of the work of the Subcommittee.

53. The Committee noted the important contributions of satellites for monitoring the Earth environment and the need to promote and enhance the space capabilities of developing countries.

54. The Committee endorsed the recommendation of the Subcommittee that the new theme fixed for special attention at the 1993 session of the Subcommittee should be "Space-based communication: the expansion of current services and increased understanding of new systems and the services they will make possible". It also endorsed the recommendation of the Subcommittee that COSPAR and IAF, in liaison with Member States, should be invited to arrange a symposium on that theme, with as wide a participation as possible, to be held

during the first week of the Subcommittee's session to complement discussions within the Subcommittee on the special theme.

55. The Committee had before it a summary of the scientific and technical presentations made during the twenty-ninth session of the Scientific and Technical Subcommittee (A/AC.105/516).

56. Some delegations, while recognizing the significance of the scientific and technical presentations to the Subcommittee, expressed the view that, as an intergovernmental forum, the Subcommittee should give priority to discussing policies and guidelines for international cooperation in space activities and providing agreed technical parameters for the development of international space law.

9. International Space Year

57. The Committee expressed its appreciation to the participants of the panel discussion on the future of international cooperation in space held on 15 June 1992, in accordance with General Assembly resolution 46/45, to mark International Space Year. The Committee also expressed its appreciation to COSPAR and IAF for sponsoring and assisting in the organization of the special session of the Scientific and Technical Subcommittee to celebrate International Space Year.

58. The Committee took note of the programme for the participation of the United Nations in International Space Year (A/AC.105/445 and Add.1-8) and noted that a guidebook describing the programme had been distributed to Member States.

59. The Committee noted that the participation of the United Nations in International Space Year was funded by voluntary contributions. The Committee expressed its appreciation to the Member States, international organizations and other funding sources that had made voluntary contributions for the purpose or were planning to do so. The Committee urged other Member States, international organizations and other funding sources to support further scientific and technical activities in cooperation with the United Nations as part of International Space Year.

60. The Committee noted that a focus of International Space Year activities was the use of space technology for studying and monitoring the environment. It also noted that the General Assembly, in resolution 46/45, had reiterated its recommendation that Member States, in planning their activities for International Space Year, should consider ways in which those activities could complement the efforts of the United Nations Conference on Environment and Development. The Committee noted the cooperation of the Office for Outer Space Affairs in the preparations for the Conference.

61. The Committee noted the wide variety of national and international programmes, those already undertaken and those being planned, as part of

International Space Year, including the activities coordinated through the Space Agency Forum on International Space Year (SAFISY), COSPAR, IAF and ISPRS.

62. It noted in particular the programme for the World Space Congress being organized jointly by COSPAR and IAF and the importance of including all countries in those programmes and of planning activities that would continue beyond 1992. It further noted that the United Nations was working with the Congress organizers in increasing the representation of speakers and participants from developing countries.

63. The Committee agreed that International Space Year provided an opportunity to strengthen and expand international cooperation in the peaceful uses of outer space and noted the importance of including all countries in the activities of the Year. The Committee noted that that was particularly important considering that International Space Year coincided with the tenth anniversary of UNISPACE 82.

64. The Committee welcomed a display of the artwork of the World Gratitude Day - International Children's Poster Exhibit on the theme of International Space Year to be organized in cooperation with the World Gratitude Day programme during September 1992 at United Nations Headquarters.

65. The Committee noted that the United Nations, in the context of International Space Year, was conducting an essay contest and issuing a commemorative stamp on the theme of International Space Year, and that efforts were being made, subject to the availability of additional voluntary contributions, to prepare a series of video programmes on International Space Year themes. It further noted that Member States were participating in and contributing to some of those activities.

66. The Committee noted that generous contributions were needed from Member States, international organizations and other funding sources in order successfully to execute International Space Year activities through the United Nations Programme on Space Applications, since the Programme was dependent on voluntary contributions for most of its activities.

67. The Committee took note of the national and international activities being planned for the remainder of the Year, including activities planned through the Space Agency Forum on International Space Year, the plans of COSPAR and IAF for celebrating 1992 as International Space Year and activities relating to "Mission to Planet Earth". The Committee noted the importance of the participation of all countries, in particular developing countries, in those activities.

10. Space and Earth environment

68. The Committee noted that the General Assembly, in its resolution 46/45, had recommended that more attention should be paid to all aspects related to the protection and preservation of the outer space environment, especially

those potentially affecting the Earth's environment. The recently completed United Nations Conference on Environment and Development had further indicated the need to pay more attention to that issue.

69. The Committee also noted that the General Assembly, in the same resolution, had considered that it was essential that Member States should pay more attention to the problem of collisions of space objects with space debris and other aspects related to space debris and had called for, among other things, the continuation of national research on the question. The General Assembly, in the same resolution, had also considered that space debris could be an appropriate subject for discussion by the Committee in the future.

70. The Committee agreed that there was a need for further research concerning space debris, for the development of improved technology for the monitoring of space debris and for the compilation and dissemination of data on space debris. The Committee also noted the importance of international cooperation in addressing those issues.

71. The Committee agreed that information on national research on space debris should, to the extent possible, be provided to the Subcommittee, in order to allow the Subcommittee to follow that area more closely. In that connection, the Committee took note of the information on national research submitted by Member States (A/AC.105/510 and Adds.1-3) pursuant to the request of the Secretary-General.

72. Some delegations expressed the view that the question of space debris should be included on the Subcommittee's agenda at its next session, allowing for a general exchange of views and information. The view was also expressed that, while recognizing the importance of the subject, further national research on the problem of space debris was still required.

73. The view was expressed that, under the auspices of the Committee, a team of international experts should be constituted to explore technical strategies to reduce space debris to ensure the safety of all future space missions and recommend methods for freely sharing such technologies.

74. The Committee noted the importance of satellite remote sensing for monitoring the Earth's environment, and in particular for studying and monitoring global change.

75. The Committee agreed that the Secretariat should prepare, for the Committee's next session, an analytical report on the role that the Committee could play in view of the decisions and recommendations of the United Nations Conference on Environment and Development.